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[74]专利代理机构 中国国际贸易促进委员会专利商标事务所  
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[32]92.11.13 [33]K.R.[31]22350 / 92

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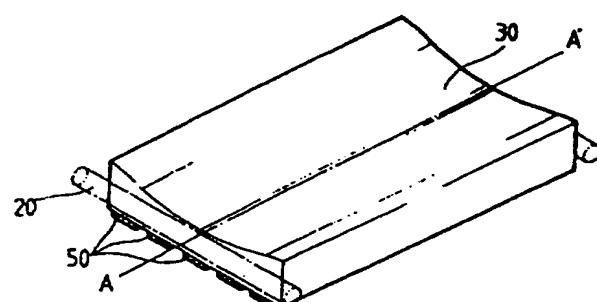
[72]发明人 朴钟浩

说明书页数: 附图页数:

[54]发明名称 用于液晶器件的背照明装置

[57]摘要

一种用于 LCD 器件并在整个屏幕上产生均匀亮度的背照明装置，包括一个在导光板的透光顶面上沿第一方向形成的半圆柱凹面，两个靠近导光板沿垂直于第一方向的每一边缘安装的灯，一个安放在透光顶面上的散光板，一个固定到透光底面下边的反射板，以及在导光板和反射板之间形成的反射膜花纹。本发明的背照明装置制作简单，能产生均匀的高亮度。



装置的反射膜印制花纹的示意图。

现在参照图3和图4。按本发明的背照明装置包括：一个具有预定厚度的导光板30，在导光板30上沿A—A'方向形成一个半圆柱形的凹面；两个灯20靠近导光板垂直于A'方向的每个边缘安装；一个放在导光板顶部的散光板10；一个固定到导光板底部的反射板40；以及在导光板和反射板之间形成的反射膜花纹50。在导光板30和反射板40之间形成的多个反射膜花纹50相互间隔开预定的距离，以便漫反射导光板30的入射光。反射膜花纹50最好间隔相等。

另一方面，位于散光板10下方且把灯20的光导向散光板10的导光板30的厚度从中轴向两个相对的无灯边缘逐渐加大。因此，导光板30的两个无灯的相对边缘的厚度最好做得比它们中间的中轴部分厚5—20%。还有，最好用注模法或热压法制造导光板30。

在如以上所述构造的本发明的背照明装置中，如果光从灯20发出，光即被引入导光板30。顺便提一下，几乎所有引入导光板30的光都被反射板40和导光板30之间形成的反射膜花纹50反射到散光板10。

按照本发明的一个实施例，在两个相对的无灯边缘之间的中间部分的反射膜花纹尺寸最大，从而加强了对灯20的光的反射。还有，导光板30的厚度从中轴部分开始向无灯20的两个相对边缘逐渐加大，从而在每个边缘都能提供更多的光反射。

因此，为了克服常规的背照明装置的光照不均匀性，在垂直于两

图4

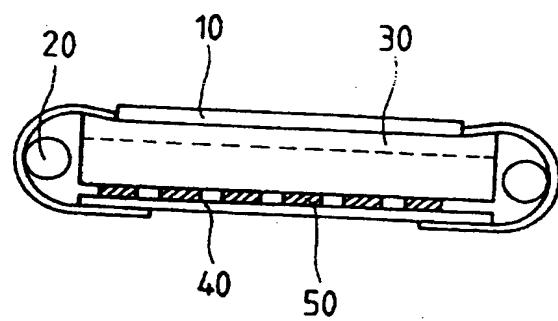
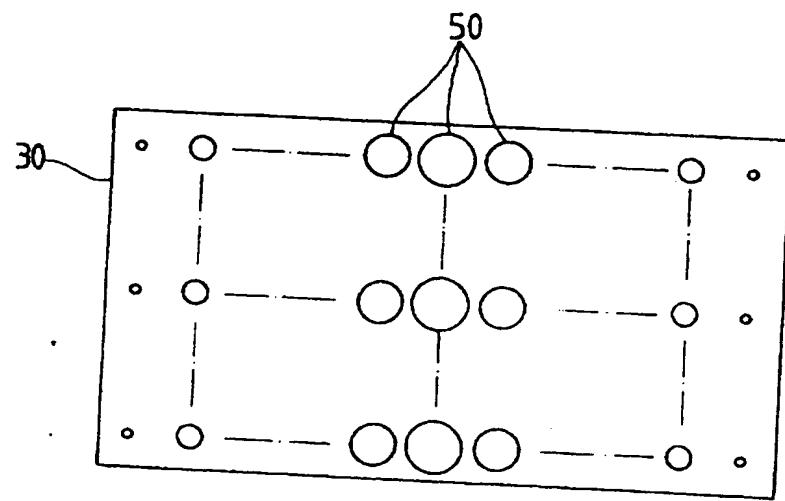


图5





**THE PATENT OFFICE OF THE STATE INTELLECTUAL PROPERTY OFFICE  
OF THE PEOPLE'S REPUBLIC OF CHINA**

Address: No.6 Xi Tucheng Lu, Jimeng Qiao Haidian District, Beijing Post code: 100088 P.O.BOX: Beijing 8020

**Shanghai Patent & Trademark Law Office**

Date of Dispatch  
August 23, 2002

Application No.: 98105185.5	Applicant: SHARP KABUSHIKI KAISHA
Application Date: March 27, 1998	Agent:
Title: FRONT-ILLUMINATING DEVICE AND A REFLECTION-TYPE LIQUID CRYSTAL DISPLAY USING SUCH A DEVICE	

**NOTICE ON THE FIRST OFFICE ACTION**

1.  According to the Request for Substantive Examination raised by the applicant and based on the provision of Item 1, Article 35 of the Patent Law, the Examiner has proceeded with the Examination as to Substance on the above mentioned application for patent for invention.  
 According to Item 2, Article 35 of the Chinese Patent Law, the Patent Office has decided to examine the above application for patent for invention.
  
2.  The applicant has requested that the filling date of  
March 28, 1997 at the JP Patent Office as the priority date,  
December 19, 1997 at the JP Patent Office as the priority date,  
\_\_\_\_\_ at the \_\_\_\_\_ Patent Office as the priority date,  
\_\_\_\_\_ at the \_\_\_\_\_ Patent Office as the priority date.  
 The applicant has already submitted the copy of the first filed prior application document certified by the receiving office of the country where the application was originally filed.  
 The applicant has not submitted the copy of the first filed prior application document certified by the receiving office of the country where the application was originally filed. It is deemed not having claimed priority according to the provision stipulated in Article 30 of the Patent Law.  
 This application is a PCT application.
  
3.  The applicant submitted on \_\_\_\_\_ and \_\_\_\_\_ the amendment documents.  
On examination, among them,  
the \_\_\_\_\_ submitted on \_\_\_\_\_ can not be accepted.  
the \_\_\_\_\_ submitted on \_\_\_\_\_ can not be accepted.  
Because the above amendment  
 does not conform with the provisions of Article 33 of the Chinese Patent Law,  
 does not conform with the provisions of Rule 51 of the Implementing Regulations of the Chinese Patent Law,  
Refer to the text of the Notice for the specific reasons why the amendment cannot be accepted

4.  The examination has been proceeded on the original application documents.  
 The examination is directed at the following application documents:  
 Claim \_\_\_\_\_, page \_\_\_\_\_ of the specification, page \_\_\_\_\_ of the drawing of the original application documents submitted on the date of filing.  
 Claim \_\_\_\_\_, page \_\_\_\_\_ of the specification, page \_\_\_\_\_ of the drawing submitted on \_\_\_\_\_.  
 Claim \_\_\_\_\_, page \_\_\_\_\_ of the specification, page \_\_\_\_\_ of the drawing submitted on \_\_\_\_\_.  
 Claim \_\_\_\_\_, page \_\_\_\_\_ of the specification, page \_\_\_\_\_ of the drawing submitted on \_\_\_\_\_.  
 Abstract of the specification submitted on \_\_\_\_\_, the drawing of the Abstract submitted on \_\_\_\_\_.

5.  This Notice is made under the condition of no search having been conducted.  
 This Notice is made under the condition of search having been conducted.  
 This Notice has cited the below comparison documents (the number of which shall continue to be used in the subsequent examination procedures):

No.	Title of Document	Date of Publication (or the filing date of the conflicting Application)
1	US 5608550A	March 4, 1997
2	CN 1087180A	May 25, 1994
3		
4		

6. The conclusive opinion drawn from the examination:

- As regards the Specification:  
 The contents of the application fall under the scope stipulated by Article 5 of the Patent Law for which no patent right shall be granted.  
 The specification does not conform with the provision of Item 3, Article 26 of the Patent Law.  
 The drafting of the specification does not conform with the provision of Rule 18 of the Implementing Regulations.
- As regards the Claims:  
 Claim 1,17,36 does not possess the novelty as stipulated in Item 2, Article 22 of the Patent Law.  
 Claim 2,9,11,20,35 does not possess the inventiveness as stipulated in Item 3, Article 22 of the Patent Law.  
 Claim \_\_\_\_\_ does not possess the practical applicability as stipulated in Item 4, Article 22 of the Patent Law.  
 Claim \_\_\_\_\_ falls under the scope of Article 25 of the Patent Law where no patent right is to be granted.  
 Claim \_\_\_\_\_ does not conform with the provision of Item 4, Article 26 of the Patent Law.  
 Claim 3,12,15,18-19,21-24,27,32,34,37-40,42,43 does not conform with the provision of Item 1, Article 31 of the Patent Law.  
 Claim \_\_\_\_\_ does not conform with the definition of invention as stipulated in Item 1, Article 2 of the Implementing Regulations of the Patent Law.  
 Claim \_\_\_\_\_ does not conform with the provision of Item 1, Rule 13 of the Implementing Regulations of the Patent Law.  
 Claim \_\_\_\_\_ does not conform with the provisions of Rules 20 to 23 of the Implementing Regulations of the Patent Law.

Refer to the text of this Notice for the specific analyses of the conclusive opinion.

7. Based on the above conclusive opinion, the Examiner deems that:
- The applicant shall amend the application documents in accordance with the requirements raised in the text of the Notice.
  - The applicant shall discuss in his observations reasons why this application for patent can be granted a patent right, and amend the portions indicated in the text of the Notice which have been deemed as not conforming with the provisions, or no patent right shall be granted.
  - There are no substantive contents in the application for patent that can be granted a patent right. If the applicant does not present reasons or the reasons presented are not sufficient, the application shall be rejected.
8. The applicant is asked to note the following items:
- (1) According to the provision of Article 37 of the Patent Law, the applicant shall submit his observations within **four months** from the receipt of this Notice. Where, without justified reasons, the applicant does not respond at the expiration of said date, the application shall be deemed to have been withdrawn
  - (2) The applicant shall amend his application according to Article 33 of the Patent Law. The amended documents shall be in duplicate, and the form, in conformity with the relevant provisions in the Examination Guide.
  - (3) The applicant and/or his agent can not, without first making an appointment, go to the Patent Office to have an interview with the Examiner.
  - (4) The observations and/or the amended documents shall be mailed or delivered to Department of Receipt, the Patent Office of the State Intellectual Property Office. No documents shall possess legal effects if not mailed or delivered to Department of Receipt.

9. The text portion of this Notice totals **3** page(s), and includes the following attachment(s):

- duplicate copy(ies) of cited comparison document(s), altogether **2** copy(ies) **8** pages.
- 

Examination Department: \_\_\_\_\_ Examiner(Seal): \_\_\_\_\_

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### FIRST OFFICE ACTION

The present application relates to a front-illuminating device and a reflection-type liquid crystal display using such a device, and is rejected for the following reasons.

Claim 1 recites the front-illuminating device, but Document 1 (US5608550A) discloses a front-illuminating device that "includes a light pipe 42 (corresponding to the light-directing body recited on claim 1) that is placed in front of a light source 22 and an object to be illuminated 12, the light pipe having an incident surface on which light from the light source is made incident, a first light-releasing surface from which light is released to the object to be illuminated 12 and a second light-releasing surface, placed face to face with the first light-releasing surface, for releasing light reflected from the object to be illuminated, wherein the second light-releasing surface is formed into a step shape in which slanting portions for reflecting light mainly from the light source toward the first light-releasing surface and flat portions for transmitting light reflected mainly from the object to be illuminated are alternately placed" (see column 3 line 32 to column 4 line 3, Figs. 3 and 4B of the specification). That is, all the technical feature recited on claim 1 is disclosed in Document 1. Further, the technical ideas recited in claim 1 belong to the same technical field, and solve the same problems, and exhibit the same effects as in Document 1. Thus, the technical ideas recited on claim 1 does not have novelty defined in Section 22 Paragraph 2 of the Patent Law.

Document 2 (CN1087180A) that belongs to the same technical field as in the present application discloses such a feature that “supposing that said light-directing body is a first light-directing body 30, the front-illuminating device is further provided with a second light-directing body 10 for averaging the luminance distribution of light released from the first light-releasing surface” (see page 4, lines 2 to 8 and Fig. 4 of the specification). That is, the technical feature added to claim 2 are disclosed in Document 2. Further, the foregoing feature disclosed in Document 2 also exhibits such an effect that it is possible to prevent unevenness in the luminance distribution of the released light. That is, Document 2 teaches means for solving the problems in combination with the technical ideas disclosed in Document 1. Thus, in a case where claim 1 on which claim 2 is dependent has no novelty, the technical ideas recited in claim 2 has no outstanding feature and no distinct progress, so that claim 2 does not have inventive step defined in Section 22 Paragraph 3 of the Patent Law.

A feature added to claim 9 are such that “the second light-directing body is a light-diffusing body that diffuses light from the first light-releasing surface of the first light-directing body”, and the feature is disclosed in Document 2 (see page 4, lines 2 to 8 and Fig. 4 of the specification). Further, the feature disclosed in Document 2 exhibit such an effect that the luminance distribution of the reflected light is averaged. Thus, in a case where claim 2 on which claim 9 is dependent has no inventive step, the technical ideas

recited in claim 9 has no outstanding feature and no distinct progress, so that claim 9 does not have inventive step defined in Section 22 Paragraph 3 of the Patent Law.

A feature added to claim 11 is such that “the light diffusing body is a front-diffusing body”, and the feature is disclosed in Document 2 (see page 4, lines 2 to 8 and Fig. 4 of the specification). Further, the feature disclosed in Document 2 exhibits such an effect that the luminance distribution of the reflected light is averaged. Thus, in a case where claim 9 on which claim 11 is dependent has no inventive step, the technical ideas recited in claim 11 has no outstanding feature and no distinct progress, so that claim 11 does not have inventive step defined in Section 22 Paragraph 3 of the Patent Law.

A feature added to claim 17 is such that “the incident surface is located on a side face of the light-directing body”, and the feature is disclosed in Document 1. Thus, in a case where claim 1 on which claim 17 is dependent has no novelty, the technical ideas recited in claim 17 does not have novelty defined in Section 22 Paragraph 2 of the Patent Law.

A feature added to claim 17 is such that “the front-illuminating device further includes a light-converging means for allowing light from the light source to be made incident only on the incident surface”, and the feature is disclosed in Document 2 (see page 4, lines 2 to 8 and Fig. 4 of the specification). Further, the feature disclosed in Document 2 exhibits such an effect that the

light from the light source is more efficiently used. Thus, in a case where claim 1 on which claim 20 is dependent has no novelty, the technical ideas recited in claim 20 has no outstanding feature and no distinct progress, so that claim 20 does not have inventive step defined in Section 22 Paragraph 3 of the Patent Law.

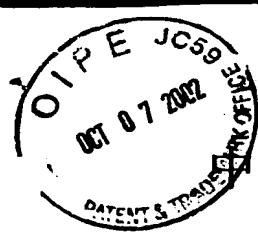
A feature added to claim 35 is such that "the sum of a pitch of the flat portions and a pitch of the slanting portions that are formed on the light-directing body is set to become smaller as the distance from the incident surface increases", and Document 2 discloses such a feature that "the sum of a pitch of the flat portions and a pitch of the slanting portions that are formed on the wedge-shaped light-directing body is set to become smaller as the distance from the incident surface increases" (see page 4, lines 2 to 8 and Figs. 3, 4A, and 4B of the specification). Further, the characteristic disclosed in Document 2 exhibits such an effect that the foregoing arrangement cancels the reduction in the luminance in the object to be illuminated due to an increased distance from the light source to the entire body of the object to be illuminated. That is, Document 1 teaches means for applying the foregoing feature to the light-directing body having the slanting portions. Thus, in a case where claim 1 on which claim 35 is dependent has no novelty, the technical ideas recited in claim 35 has no outstanding feature and no distinct progress, so that claim 35 does not have inventive step defined under Section 22 Paragraph 3 of the Patent Law.

Document 1 discloses such a feature that "the front-illuminating device 10 includes a reflection-type liquid crystal pipe 12 having a reflective plate 18, wherein the front-illuminating device 10 is placed in front of the reflection-type liquid crystal pipe (see column 2, line 35 to column 3, line 40, Figs. 1 and 3 of the specification). That is, Document 1 discloses technical feature added to claim 36. Thus, in a case where claim 1 on which claim 36 is dependent has no novelty, claim 36 does not have novelty defined under Section 22 Paragraph 2 of the Patent Law.

In a case where claim 2 on which claims 3, 12, and 15 are dependent has no novelty, claims 3, 12, and 15 do not have same or common technical feature. In a case where claim 17 on which claims 18 and 19 are dependent has no novelty, claims 18 and 19 do not have same or common technical feature. Further, "the reflection-type liquid crystal element has a scanning line" is a technique known in the field. Thus, in a case where claim 36 on which claims 37, 38, 39, 40, and 42 are dependent has no novelty, claims 37, 38, 39, 40, and 42 do not have same or common technical feature. Claims 21, 22, 23, 24, 27, 32, 34, and 43 do not have same or common technical feature compared with Document 1. Thus, claims 21, 22, 23, 24, 27, 32, 34, and 43 do not have unity defined under Section 31 Paragraph 1 of the Patent Law.

In a case where claims are amended, "DISCLOSURE OF THE INVENTION" of the specification should be amended so as to correspond to the claim amendment.

According to the foregoing reasons, the present application is not allowable at the present stage. Argument should be made or amended claims and specification should be filed within a due date specified in this office action. Otherwise, this application is to be refused as the final rejection. Amendment made with respect to application documents should conform to the rule of Section 33 of the Patent Law, and new matters should not be added.

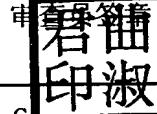


# 中华人民共和国国家知识产权局

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邮政编码：200233

上海市桂平路 435 号  
上海专利商标事务所  
王树侍



申请号	98105185.5	部门及通知书类型	9-C
申请人	夏普株式会社		
发明名称	前方照明装置和具备该装置的反射型液晶显示装置		



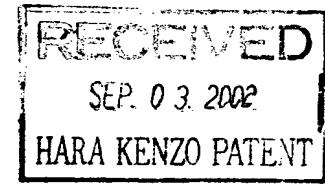
## 第一次审查意见通知书

1.  依申请人提出的实审请求，根据专利法第 35 条第 1 款的规定，审查员对上述发明专利申请进行实质审查。

根据专利法第 35 条第 2 款的规定，国家知识产权局决定自行对上述发明专利申请进行审查。

2.  申请人要求以其在：

日本 专利局的申请日 1997 年 3 月 28 日为优先权日，  
日本 专利局的申请日 1997 年 12 月 19 日为优先权日，  
\_\_\_\_\_ 专利局的申请日 \_\_\_\_\_ 年 \_\_\_\_\_ 月 \_\_\_\_\_ 日为优先权日，  
\_\_\_\_\_ 专利局的申请日 \_\_\_\_\_ 年 \_\_\_\_\_ 月 \_\_\_\_\_ 日为优先权日，  
\_\_\_\_\_ 专利局的申请日 \_\_\_\_\_ 年 \_\_\_\_\_ 月 \_\_\_\_\_ 日为优先权日。



申请人已经提交了经原申请国受理机关证明的第一次提出的在先申请文件的副本。

申请人尚未提交经原申请国受理机关证明的第一次提出的在先申请文件的副本，根据专利法第 30 条的规定视为未提出优先权要求。

3.  申请人于 \_\_\_\_\_ 年 \_\_\_\_\_ 月 \_\_\_\_\_ 日和 \_\_\_\_\_ 年 \_\_\_\_\_ 月 \_\_\_\_\_ 日提交了修改文件。

经审查，其中： \_\_\_\_\_ 年 \_\_\_\_\_ 月 \_\_\_\_\_ 日提交的 \_\_\_\_\_ 不能被接受；

\_\_\_\_\_ 年 \_\_\_\_\_ 月 \_\_\_\_\_ 日提交的 \_\_\_\_\_ 不能被接受；

因为上述修改  不符合专利法第 33 条的规定。  不符合实施细则第 51 条的规定。

修改不能被接受的具体理由见通知书正文部分。

4.  审查是针对原始申请文件进行的。

审查是针对下述申请文件的：

申请日提交的原始申请文件的权利要求第 \_\_\_\_\_ 项、说明书第 \_\_\_\_\_ 页、附图第 \_\_\_\_\_ 页；  
\_\_\_\_\_ 年 \_\_\_\_\_ 月 \_\_\_\_\_ 日提交的权利要求第 \_\_\_\_\_ 项、说明书第 \_\_\_\_\_ 页、附图第 \_\_\_\_\_ 页；  
\_\_\_\_\_ 年 \_\_\_\_\_ 月 \_\_\_\_\_ 日提交的权利要求第 \_\_\_\_\_ 项、说明书第 \_\_\_\_\_ 页、附图第 \_\_\_\_\_ 页；  
\_\_\_\_\_ 年 \_\_\_\_\_ 月 \_\_\_\_\_ 日提交的权利要求第 \_\_\_\_\_ 项、说明书第 \_\_\_\_\_ 页、附图第 \_\_\_\_\_ 页；  
\_\_\_\_\_ 年 \_\_\_\_\_ 月 \_\_\_\_\_ 日提交的说明书摘要，\_\_\_\_\_ 年 \_\_\_\_\_ 月 \_\_\_\_\_ 日提交的摘要附图。

5.  本通知书是在未进行检索的情况下作出的。

本通知书是在进行了检索的情况下作出的。

本通知书引用下述对比文献(其编号在今后的审查过程中继续沿用)：

回函请寄：100088 北京市海淀区蓟门桥西土城路 6 号 国家知识产权局专利局受理处收

编号	文件号或名称	公开日期
1	US 5608550 A	1997年3月4日
2	CN 1087180 A	1994年5月25日
3		年月日
4		年月日

6. 审查的结论性意见:

关于说明书:

- 申请的内容属于专利法第5条规定的不授予专利权的范围。  
 说明书不符合专利法第26条第3款的规定。  
 说明书的撰写不符合实施细则第18条的规定。

关于权利要求书:

- 权利要求 1、17、36 不具备专利法第22条第2款规定的新颖性。  
 权利要求 2、9、11、20、35 不具备专利法第22条第3款规定的创造性。  
 权利要求 \_\_\_\_\_ 不具备专利法第22条第4款规定的实用性。  
 权利要求 \_\_\_\_\_ 属于专利法第25条规定的不授予专利权的范围。  
 权利要求 \_\_\_\_\_ 不符合专利法第26条第4款的规定。  
 权利要求 3、12、15、18-19、21-24、27、32、34、37-40、42、43 不符合专利法第31条第1款的规定。  
 权利要求 \_\_\_\_\_ 不符合专利法实施细则第2条第1款关于发明的定义。  
 权利要求 \_\_\_\_\_ 不符合专利法实施细则第13条第1款的规定。  
 权利要求 \_\_\_\_\_ 不符合专利法实施细则第20条至第23条的规定。

上述结论性意见的具体分析见本通知书的正文部分。

7. 基于上述结论性意见, 审查员认为:

- 申请人应按照通知书正文部分提出的要求, 对申请文件进行修改。  
 申请人应在意见陈述书中论述其专利申请可以被授予专利权的理由, 并对通知书正文部分中指出的不符合规定之处进行修改, 否则将不能授予专利权。  
 专利申请中没有可以被授予专利权的实质性内容, 如果申请人没有陈述理由或者陈述理由不充分, 其申请将被驳回。

8. 申请人应注意下述事项:

- (1) 根据专利法第37条的规定, 申请人应在收到本通知书之日起的肆个月内陈述意见, 如果申请人无正当理由逾期不答复, 其申请将被视为撤回。
- (2) 申请人对其申请的修改应符合专利法第33条的规定, 修改文本应一式两份, 其格式应符合审查指南的有关规定。
- (3) 申请人的意见陈述书和/或修改文本应邮寄或递交国家知识产权局专利局受理处, 凡未邮寄或递交给受理处的文件不具备法律效力。
- (4) 未经预约, 申请人和/或代理人不得前来国家知识产权局专利局与审查员举行会晤。

9. 本通知书正文部分共有 3 页, 并附有下述附件:

- 引用的对比文件的复印件共 2 份 8 页。

审查 九 部

审查员 胡婧

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(未加盖审查业务专用章的通知书不具备法律效力)

## 第一次审查意见通知书正文

该发明专利申请涉及一种前方照明装置和具备该装置的反射型液晶显示装置。经审查，具体意见如下：

权利要求 1 请求保护一种前方照明装置。对比文件 1 (US5608550A) 也公开了一种前方照明装置，并具体披露了以下技术特征（说明书第 3 栏第 32 行至第 64 行及附图 3、4B）：它具有光源（22）和配置在被照明物（12）前方的光导管（42）（相当于权利要求 1 中的光导体），该光导管具有使光源光入射的入射面、向被照明物放射光的第 1 放射面、与上述第 1 放射面面对面、将被照物的反射光放射的第 2 放射面；将上述第 2 放射面形成由主要将光源光向第 1 放射面反射的倾斜部和主要让被照明物的反射光透射的平坦部相互交替相连而成阶梯状。由此可见，对比文件 1 公开了权利要求 1 的全部技术特征，且权利要求 1 请求保护的技术方案与对比文件 1 公开的技术方案属于同一技术领域，所要解决的技术问题相同，并能产生相同的技术效果。因此权利要求 1 请求保护的技术方案不符合专利法第二十二条第二款有关新颖性的规定，不具有新颖性。

对比文件 2 (CN1087180A) 是一篇涉及技术领域与该申请涉及的技术领域相同的文献，并披露了权利要求 2 的附加技术特征（说明书第 4 页第 2 行至第 8 行及附图 4）：将其光导体作为第 1 光导体（30），进而具有使上述第 1 放射面的放射光的亮度分布均匀化的第 2 光导体（10）。上述技术特征在对比文件 2 中所起的作用是为了克服光照不均匀性，这与上述技术特征在权利要求 2 请求保护的技术方案中所起的作用相同，即对比文件 2 给出了将上述技术特征应用于对比文件 1 中以进一步解决其技术问题的启示。因而由于其引用的权利要求 1 不具有新颖性，权利要求 2 请求保护的技术方案不具有突出的实质性特点和显著的进步，不符合专利法第二十二条第三款有关创造性的规定，不具有创造性。

权利要求 9 的附加技术特征为：所述第 2 光导体是使来自第 1 光导体的第 1 放射面的放射光散射的光散射体。对比文件 2 也公开了上述技术特征（说明书第 4 页第 2 行至第 8 行及附图 4），且上述技术特征在对比文件 2 中所起的作用是为了使放射光的亮度均匀分布，这与上述技术特征在权利要求 9 请求保护的技术方案中所起的作用相同。因而由于其引用的权利要求 2 不具有创造性，权利要求 9 请求保护的技术方案不具有突出的实质性特点和显著的进步，不符

合专利法第二十二条第三款有关创造性的规定，不具有创造性。

权利要求 11 的附加技术特征为：上述光散射体是前方光散射体。对比文件 2 也公开了上述技术特征（说明书第 4 页第 2 行至第 8 行及附图 4），且上述技术特征在对比文件 2 中所起的作用使放射面的放射光亮度均匀分布，这与上述技术特征在权利要求 11 请求保护的技术方案中所起的作用相同。因而由于其引用的权利要求 9 不具有创造性，权利要求 11 请求保护的技术方案不具有突出的实质性特点和显著的进步，不符合专利法第二十二条第三款有关创造性的规定，不具有创造性。

权利要求 17 的附加技术特征为：其入射面位于光导体的侧面。对比文件 1 也公开了上述技术特征。因而由于其引用的权利要求 1 不具有新颖性，权利要求 17 请求保护的技术方案不符合专利法第二十二条第二款有关新颖性的规定，不具有新颖性。

权利要求 20 的附加技术特征为：该装置具有使光源光仅向上述入射面入射的聚光装置。对比文件 2 也公开了上述技术特征（说明书第 4 页第 2 行至第 8 行及附图 4），且该技术特征在对比文件中所起的作用是提高光源放射光的利用率，这与该技术特征在权利要求 20 请求保护的技术方案中所起的作用相同。因而由于其引用的权利要求 1 不具有新颖性，权利要求 20 请求保护的技术方案不具有突出的实质性特点和显著的进步，不符合专利法第二十二条第三款有关创造性的规定，不具有创造性。

权利要求 35 的附加技术特征为：在上述光导体上形成的平坦部的节距与倾斜部的节距之和随着远离上述入射面而变小。对比文件 1（说明书第 3 栏第 32 行至第 4 栏第 3 行及附图 3、4B 及附图 4A）中公开了其锯齿状光导体上形成的平坦部的节距与倾斜部的节距之和随着远离上述入射面而变小。该技术特征在对比文件中所起的作用是使光源放射光亮度随着离开光源而降低的负效应被抵消，而使光源的光对被照明物全体照射。这与权利要求 35 请求保护的技术方案中光导体上形成的平坦部的节距与倾斜部的节距之和随着远离上述入射面而变小所起的作用相同，即对比文件 1 给出了将上述技术特征应用于具有倾斜部的光导体上以进一步解决其技术问题的启示。因而由于其引用的权利要求 1 不具有新颖性，权利要求 35 请求保护的技术方案不具有突出的实质性特点和显著

的进步，不符合专利法第二十二条第三款有关创造性的规定，不具有创造性。

对比文件 1 也公开了权利要求 36 的附加技术特征（说明书第 2 栏第 35 行至第 3 栏第 40 行及附图 1、3）：该装置具备具有反射板（18）的反射型液晶管（12），在该反射型液晶管的前面配置前述的前方照明装置（10）。因而由于其引用的权利要求 1 不具有新颖性，权利要求 36 请求保护的技术方案不符合专利法第二十二条第二款有关新颖性的规定，不具有新颖性。

权利要求 3、12、15 因其引用的权利要求 2 不具有创造性，它们之间没有相同或相应的特定技术特征；权利要求 18 和权利要求 19 之间因其引用的权利要求 17 缺乏新颖性也没有相同或相应的特定技术特征；权利要求 37、38、39、40、42 引用的权利要求 36 缺乏新颖性，且“反射型液晶管具有扫描线”对于本领域技术人员来说属于公知常识，因而它们之间没有相同或相应的特定技术特征；权利要求 21、22、23、24、27、32、34、43 和对比文件 1 相比他们之间也没有相同或相应的特定技术特征。因此上述权利要求没有相同或相应的特定技术特征，不符合专利法第三十一条第一款有关单一性的规定。

在提交新修改的说明书时应同时根据修改后的权利要求书对说明书做适应性修改：如新提交的说明书中技术方案部分应根据修改后的权利要求做出相应修改。

本申请的说明书还存在下述问题：说明书中缺少各部分的标题，不符合专利法实施细则第十八条第二款的规定。

基于上述理由，本申请按照目前的文本是不能被授权的，申请人应根据上述审查意见在指定的期限内陈述意见或提交新的权利要求书和说明书，以克服上述缺陷，否则该申请将被驳回，同时注意修改应满足专利法第三十三条的规定，不得超出原说明书和原权利要求书的范围。